

West Nile Virus Newsletter

Zoonotic Disease Program, Washington State Department of Health

October 27, 2005

Volume 3, Issue 15

Purpose

To keep our partners and other interested entities informed about West Nile virus (WNV)

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Reporting larvicide use under permit begins

National, northwest, and state surveillance

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Antibody's success against WNV surprise scientists

Journal articles from CDC's *Emerging Infectious Diseases*

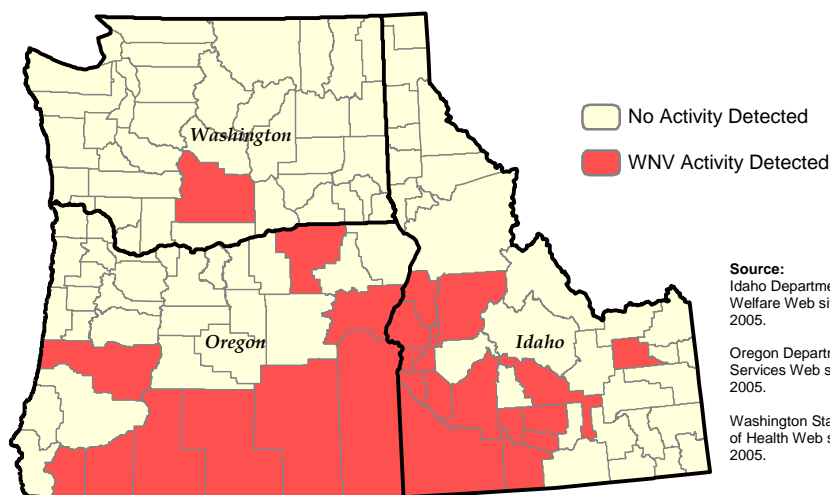
National, northwest, and state surveillance

View the [October 5th](#) WNV Newsletter

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West Nile virus activity in the Northwest



Source:
Idaho Department of Health & Welfare Web site, October 27, 2005.

Oregon Department of Human Services Web site, October 14, 2005.

Washington State Department of Health Web site, October 27, 2005.

WNV Positive in the Northwest

[Washington](#): 1 horse, 1 bird, and 2 mosquito pools

[Idaho](#): 13 humans, 106 horses, 17 mosquito pools, 14 birds, and 1 dog

[Oregon](#): 6 humans, 23 horses, 14 birds, 8 mosquito pools, and 6 sentinel chickens

British Columbia appears again to have escaped WNV

Despite a comprehensive surveillance effort this year to detect West Nile virus, British Columbia has yet to detect any activity in the province. As of October 26, BC has tested 1,055 birds, 6,631 mosquito pools, and 735 humans for WNV infection - all have tested negative. BC had a number of travel related human cases of WNV in 2003 but has had no activity since.

The limited establishment of WNV in the northwest has been appreciated by Washingtonians and British Columbians alike, but this favorable trend is viewed with caution. "We do know that we have the mosquito vectors in BC and we have the climate for WNV to be active, so like Washington we believe it's just a matter of time," says Dr. Bonnie Henry, Physician Epidemiologist with the BC Centre for Disease Control.

"Like Washington State, we have been watching the virus make its way across the continent," say Dr. Muhammad Morshed, Clinical Microbiologist with the BCCDC. "The surveillance systems in our neighboring states and provinces have allowed us to track it closely and know just how great the risk is in our areas."

More information about surveillance for WNV in British Columbia can be found at <http://www.bccdc.org/content.php?item=183>.

WNV Web Resources

Washington State
Department of Health
www.doh.wa.gov/wnv

Centers for Disease
Control and Prevention
www.cdc.gov/ncidod/dvbid/westnile

US Geological Survey &
CDC ArboNET maps
<http://westnilemaps.usgs.gov/index.html>

Cornell University,
Environmental Risk
Analysis Program
<http://environmentalrisk.cornell.edu/WNV/>

Washington State
University Cooperative
Extension
www.wnv.wsu.edu

Washington State
Department of
Agriculture
www.agr.wa.gov/FoodAnimal/AnimalHealth/Diseases/WestNileVirus/default.htm

Northwest Links

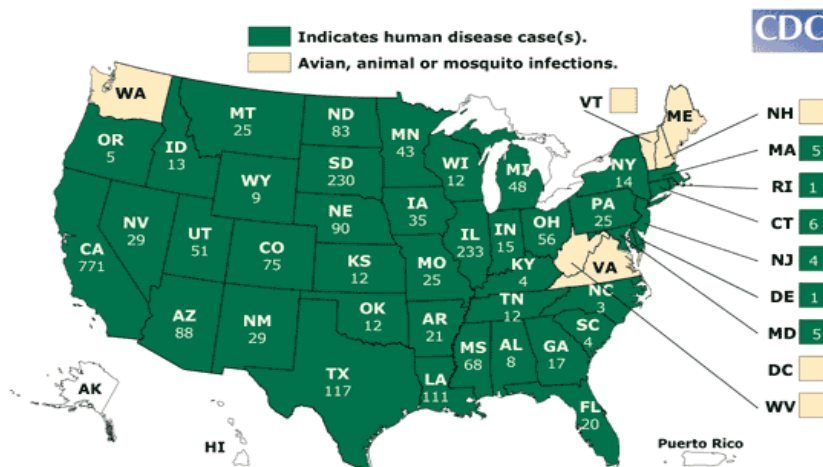
Idaho Department of
Health & Welfare
www.westnile.idaho.gov

Oregon Department of
Human Services
<http://egov.oregon.gov/DHS/ph/acd/diseases/wnile/survey.shtml>

British Columbia Center
for Disease Control
www.bccdc.org

West Nile virus activity in the United States

Reported to CDC as of October 25, 2005



As of October 25, 2005 a total of 42 states have published 2,435 human cases, compared with 2,231 cases from 40 states at this time in 2004.

National maps and data available at
<http://www.cdc.gov/ncidod/dvbid/westnile/surv&control.htm>.

WNV infections in organ transplant recipients

Centers for Disease Control and Prevention, *Morbidity and Mortality Weekly Report*, October 5, 2005/ 54(Dispatch); 1-3

In September 2005, West Nile virus infection was confirmed in three of four recipients of organs transplanted from a common donor. Two recipients subsequently had neuroinvasive disease, one recipient had asymptomatic WNV infection, and a fourth recipient apparently was not infected. This report summarizes the ongoing investigation. Clinicians should be aware of the potential for transplant-associated transmission of infectious disease.

Read the entire dispatch article at
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm54d1005a1.htm>.

When do mosquitoes prefer a blood banquet, or a sugar feast? Three genes make the call

By Pam Frost Gorder, Ohio State University, *Research News*, October 18, 2005

COLUMBUS, Ohio – Entomologists have isolated three key genes that determine when female mosquitoes feed on blood and when they decide to switch to an all-sugar diet to fatten up for the winter.

David Denlinger, professor of entomology at Ohio State University, hopes this discovery will lead scientists to other genes that help the mosquitoes survive cold weather – in particular, those genes related to how insects handle the West Nile Virus when they enter a kind of hibernation.

Read about this research at <http://researchnews.osu.edu/archive/feedgene.htm>.

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Reporting of larvicide use for mosquito control begins

As the mosquito control season winds down, entities who are under DOH's Aquatic Mosquito Control National Pollutant Discharge Elimination System General Permit are reporting their larvicide use for 2005. The deadline to report records under the permit is February 1, 2006. More information is available at <http://www.doh.wa.gov/ehp/ts/Zoo/WNV/Permit.html>.

The Department of Ecology reviews the larvicide records to identify any potential water quality concerns and can provide larvicide use reports by county. A side benefit in DOH's involvement in the permit process is that we know which areas in the state are potentially controlling mosquito larvae. This has proved helpful in occasionally answering a local resident's question such as, "Is my city prepared to control the mosquito larvae in the storm drains or retention ponds?"

Washington non-human surveillance summary

Reported to DOH as of October 25, 2005

County	Horses* [†]		Birds**		Sentinel Flocks***		Mosquito Pools****	
	Tested	Positive	Tested	Positive	Tested	Positive	Tested	Positive
Adams	0	0	1	0	0	0	0	0
Asotin	0	0	2	0	0	0	0	0
Benton	1	0	26	0	418	0	277	0
Chelan	0	0	3	0	0	0	0	0
Clallam	0	0	3	0	0	0	0	0
Clark	1	0	14	0	0	0	35	0
Columbia	0	0	0	0	0	0	0	0
Cowlitz	0	0	8	0	0	0	26	0
Douglas	0	0	1	0	0	0	0	0
Ferry	0	0	2	0	0	0	0	0
Franklin	0	0	3	0	0	0	71	0
Garfield	0	0	0	0	0	0	0	0
Grant	1	0	2	0	0	0	0	0
Grays Harbor	0	0	9	0	0	0	0	0
Island	1	0	43	0	0	0	0	0
Jefferson	0	0	12	0	0	0	14	0
King	2	0	106	0	0	0	21	0
Kitsap	0	0	0	0	0	0	132	0
Kittitas	0	0	8	0	0	0	0	0
Klickitat	1	0	4	0	0	0	0	0
Lewis	0	0	19	0	0	0	0	0
Lincoln	0	0	0	0	0	0	0	0
Mason	0	0	22	0	0	0	0	0
Okanogan	0	0	2	0	0	0	0	0
Pacific	0	0	1	0	0	0	0	0
Pend Oreille	1	0	0	0	0	0	0	0
Pierce	0	0	99	0	0	0	81	0
San Juan	1	0	2	0	0	0	0	0
Skagit	1	0	12	0	0	0	0	0
Skamania	0	0	1	0	0	0	0	0
Snohomish	7	0	60	0	0	0	28	0
Spokane	2	0	21	0	0	0	0	0
Stevens	3	0	5	0	0	0	0	0
Thurston	0	0	79	0	0	0	0	0
Wahkiakum	0	0	0	0	0	0	0	0
Walla Walla	1	0	9	0	0	0	0	0
Whatcom	1	0	13	0	0	0	0	0
Whitman	1	0	6	0	0	0	0	0
Yakima	3	1	18	1	110	0	230	2
Totals	28	1	616	1	528	0	915	2

*A total of 45 horses have been tested for West Nile virus. Seventeen were not included in the table because county/state information was not available. WADDL Report Dated: October 5, 2005.

[†]WNV positive acquired in state.

**A total of 631 birds have been submitted for West virus testing of which 15 birds were unsuitable and not tested for West Nile virus. USGS Report Date: October 11, 2005 and WADDL Report Date: October 21, 2005

***Benton County MCD Report Dated: October 7, 2005

**** Mosquito pools tested by USACHPPM-West Report Date: October 14, 2005 (Week #32).
Cowlitz County MCD Report Date: August 25, 2005, Benton MCD Report Date: October 7, 2005,
Franklin MCD Report Date: August 24, 2005, Clark MCD Report Date: September 12, 2005, and
WADDL Report Date: September 7, 2005.